

**IN THE SPECIFICATION:**

Please amend the Specification as follows.

✓  
Please replace lines 79-85 on page 3 with the following amended paragraphs:

Fig. 2 shows a transmitter according to an embodiment of the invention. A directional coupler 204 may obtain the waveform as amplified by amplifier, that is a transmitted symbol. Subsequently transmitted symbols are next symbols. The signal is provided to a squarer or power detector 203, which may be an analog device. An analog to digital converter ~~follows~~ <sup>follows the detector 203</sup> 205. The signal may be integrated over the symbol duration using integrator 207, to provide an energy value 209 or energy of the transmitted symbol according to the following equation:

✓  
Please replace page 5, line 145- page 6, line 164 with the following amended paragraphs:

Yet another arrangement for determining the epsilon, alpha and g values includes calculating a first alpha, a first epsilon and a first gain based on the energy of the at least four transmitted symbols; and calculating a second alpha, a second epsilon and a second gain based on the energy of the next symbol. The final steps to reach the alpha, epsilon, and gain values may include calculating an alpha based on a an average of the first alpha and the second alpha; calculating a an epsilon based on a an average of the first epsilon and the second epsilon; and calculating a gain based on a an average of the first gain and the second gain. Thus during a compensation period, the imbalance parameters in use

may be average values. Many forms of averaging may be used, including weighting a more recent value more heavily, e.g. weighting a second alpha heavier than a first alpha.

*Ad Cont.*  
The duration when the compensator provides the compensated data signals is known as the compensation period. The compensator 251 may operate in a sampling period acquisition mode where no changes are made to data symbols provided to the compensator, and such symbols are placed onto the IFFT-bus 261 unchanged by the compensator. The compensator may operate in a feedback mode during a compensation period where the compensator 251 provides the compensated in-phase baseband, i.e. first in-phase compensated data symbol (FICDS) 263, ~~and~~, a second in-phase compensated data symbol (SICDS) 265, ~~and~~, compensated quadrature baseband, i.e. a first quadrature compensated data symbol (FQCDS) 262, and second quadrature compensated data symbol (SQCDS) 264, signals to the IFFT 271.

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